What is claimed:

1.   A method for forecasting a retail price of electricity for an end user customer in a deregulated market, comprising the steps of:

    performing a digital simulation of marginal clearing prices and hourly customer load;

    determining a risk premium to be added to the forecasted retail price based on an expected wholesale price volatility and an expected variability of customer load;

    performing a supply price analysis; and

    presenting the results of the supply price analysis to the customer.

2.   The method for forecasting retail pricing of electricity of claim 1 further comprising the steps of performing a cash flow at risk analysis and combining the results of the cash flow at risk analysis with the results of the supply price analysis.

3.   The method for forecasting retail pricing of electricity of claim 1 further comprising the steps of performing a price duration analysis and combining the results of the price duration analysis with the results of the supply price analysis.

4.   The method for forecasting retail pricing of electricity of claim 1 further comprising the steps of performing a cash flow at risk analysis and performing a price duration analysis and combining the results with the results of the supply price analysis.

5. The method for forecasting retail pricing of electricity of claim 1 wherein the step of determining a risk premium comprises:

determining a load-weighted wholesale price for a specified time period;

determining a total risk premium associated with serving the customer load.

6. The method for forecasting retail pricing of electricity of claim 5 wherein the step of determining the total risk premium associated with serving a customer load comprises:

determining a retail risk premium for serving the customer load for each simulation iteration over a specific time period; and

determining the average total risk premium for serving the customer load for a specific number of simulation iterations for the specific time period.

7. The method for forecasting retail pricing of electricity of claim 1 further comprising the step of determining an allocation of the risk premium between a supplier and the customer.

8. The method for forecasting retail pricing of electricity of claim 7 wherein the step of determining the allocation of the risk premium comprises evaluating a supplier pricing structure and demand-based volume swings.

9. The method for forecasting retail pricing of electricity of claim 8 wherein the supplier pricing structure is at least one of a fixed price structure, a time-of-use price structure, an indexed price structure, and a hybrid combination thereof.

10. The method for forecasting retail pricing of electricity of claim 9 wherein the fixed price structure establishes retail supply prices for a specific time period and a specific consumption range.

11. The method for forecasting retail pricing of electricity of claim 9 wherein the time-of-use price structure established retail supply prices into at least two time blocks based on expected consumption demand.

12. The method for forecasting retail pricing of electricity of claim 8 wherein the demand-based volume swings represent a volume band of variation from an expected baseline consumption pattern.

13. The method for forecasting retail pricing of electricity of claim 8 wherein the step of determining the allocation of the risk premium further comprises the steps of:

examining a stochastic load forecast to determine the simulation iterations in which the customer load was outside of allowable volume bands; and

determining the allocation between the supplier and the customer for each simulation iteration in which the customer load was outside the allowable volume bands.

14. The method for forecasting retail pricing of electricity of claim 8 further comprising the step of presenting an analysis to the customer of the cost and risk trade-offs for a plurality of pricing structures and demand-based volume bands.

15. The method for forecasting retail pricing of electricity of claim 2 wherein the step of performing a cash flow at risk analysis comprises measuring a potential deviation from an expected cost of a supply contract based on a variation in energy prices and demand volumes.

16. The method for forecasting retail pricing of electricity of claim 15 wherein the step of performing a cash flow at risk analysis comprises determining a difference between an expected energy spending and the energy spending at a designated percentile.

17. The method for forecasting retail pricing of electricity of claim 3 wherein the step of performing price duration analysis comprises sorting hourly forecasts of market prices and customer loads into a plurality of price bins and displaying the results as an expected case outcome, a low percentile outcome and a high percentile outcome.

18. The method for forecasting retail pricing of electricity of claim 1 wherein the step of performing a supply price analysis comprises an aggregation of a load-weighted wholesale price, a line loss adder, a plurality of system reliability charges, a supplier risk premium, an overhead and a profit margin.

19. The method for forecasting retail pricing of electricity of claim 18 wherein the load-weighted wholesale price is dependent on an expected load profile, a forecast of market prices, and a customer-supplier contract period.

20.   The method for forecasting retail pricing of electricity of claim 18 wherein the line loss adder represents an amount of energy lost over a plurality of transmission and distribution lines.

21.   The method for forecasting retail pricing of electricity of claim 18 wherein the plurality of system reliability charges include an installed capacity service charge and an ancillary service charge.

22.   The method for forecasting retail pricing of electricity of claim 21 wherein the ancillary service charge includes at least one of spinning reserves, non-spinning reserves, regulation-up, regulation-down and black start charges.

23.   The method for forecasting retail pricing of electricity of claim 18 wherein the supplier risk premium is determined based on a pricing structure, a contract duration, a price volatility, a load variability and a degree of contract volume variability.

24.   The method for forecasting retail pricing of electricity of claim 1 further comprising the step of performing a financial valuation of options embedded in a customer-supplier contract.

25. The method for forecasting retail pricing of electricity of claim 24 wherein the step of performing a financial valuation of options includes the valuation of a collar on an · indexed-based price structure.

26. The method for forecasting retail pricing of electricity of claim 24 wherein the step of performing a financial valuation of options includes a valuation of a contract extension option.

27. The method for forecasting retailing pricing of electricity of claim 24 wherein the step of performing a financial valuation of options includes evaluation of strike prices, forward prices, and volatility.

28. A computer program product for forecasting a retail price of electricity for an end-user customer in a deregulated market, comprising:

   a computer usable medium having computer readable code embodied therein, the computer usable medium comprising:

      program instructions that determine a risk premium to be added to the forecasted retail price based on an expected wholesale price volatility and an expected variability of customer load;

      program instructions that perform a supply price analysis; and

      program instructions that present the results of the supply price analysis to the customer.

29.   The computer program product for forecasting retail pricing of electricity of claim 28 wherein the computer usable medium further comprises program instructions that perform a cash flow at risk analysis and combine the results of the cash flow at risk analysis with results of the supply price analysis.

30.   The computer program product for forecasting retail pricing of electricity of claim 28 wherein the computer usable medium further comprises program instructions that perform a price duration analysis and combine the results of the price duration analysis with the results of the supply price analysis.

31.   The computer program product for forecasting retail pricing of electricity of claim 28 wherein the computer usable medium further comprises:

        program instructions that perform a cash flow at risk analysis;

        program instructions that perform a price duration analysis; and

        program instructions that combine the results of the cash flow at risk analysis and the price duration analysis with the results of a supply price analysis.

32.   The computer program product for forecasting retail pricing of electricity of claim 28 wherein the program instructions that determine a risk premium comprise:

        program instructions that determine a load-weighted wholesale price for a specific time period; and

        program instructions that determine a total risk premium associated with serving a customer load.

33. The computer program product for forecasting retail pricing of electricity of claim 32 wherein the program instructions that determine a total risk premium associated with serving a customer load comprise:

program instructions that determine a retail risk premium for serving the customer load for each simulation iteration over a specific time period; and

program instructions that determine the average total risk premium for serving the customer load for a specific number of simulation iterations for the specific time period.

34. The computer program product for forecasting retail pricing of electricity of claim 28 wherein the computer usable medium further comprises program instructions that determine an allocation of the risk premium between a supplier and the customer.

35. The computer program product for forecasting retail pricing of electricity of claim 34 wherein the program instructions that determine the allocation of the risk premium comprise program instructions that evaluate a supplier pricing structure and demand-based volume swings.

36. The computer program product for forecasting retail pricing of electricity of claim 35 wherein the supplier pricing structure is at least one of a fixed price structure, a time-of-use price structure, and an indexed price structure.

37.   The computer program product for forecasting retail pricing of electricity of claim 36 wherein the demand-based volume swings represent a volume band of variation from an expected base line consumption pattern.

38.   The computer program product for forecasting retail pricing of electricity of claim 36 wherein the program instructions that determine the allocation of the risk premium comprise:

   program instructions that examine a stochastic load forecast to determine the simulations iterations in which a customer load was outside of allowable volume bands; and

   program instructions that determine the allocation between the supplier and the customer for each simulation iteration in which the customer load was outside the allowable volume bands.

39.   The computer program product for forecasting retail pricing of electricity of claim 36 wherein the computer usable medium further comprises program instructions that present an analysis to the customer of the cost and risk tradeoffs for a plurality of pricing structures and demand-based volume bands.

40.   The computer program product for forecasting retail pricing of electricity of claim 29 wherein the program instructions that perform a cash flow at risk analysis comprise program instructions that measure a potential deviation from an expected cost of a supply contract based on a variation in energy prices and demand volumes.

41.   The computer program product for forecasting retail pricing of electricity of claim 40 wherein the program instructions that perform a cash flow at risk analysis comprise program instructions that determine a difference between an expected energy spending and the energy spending at a designated percentile.

42.   The computer program product for forecasting retail pricing of electricity of claim 30 wherein the program instructions that perform price duration analysis comprise:

        program instructions that sort hourly forecast of hourly market prices and customer loads into a plurality of price bins; and

        program instructions that display the results as an expected case outcome, a low percentile outcome, and a high percentile outcome.

43.   The computer program product for forecasting retail pricing of electricity of claim 28 wherein program instructions that perform a supply price analysis comprise program instructions that aggregate a load-weighted wholesale price, a line loss adder, a plurality of system reliability charges, a supplier risk premium, an overhead, and a profit margin.

44.   The computer program product for forecasting retail pricing of electricity of claim 43 wherein the load-weighted wholesale price is dependant on an expected load profile, a forecast of market prices, and a customer-supplier contract period.

45. The computer program product for forecasting retail pricing of electricity of claim 43 wherein the line loss adder represents an amount of energy loss over a plurality of transmission and distribution lines.

46. The computer program product for forecasting retail pricing of electricity of claim 43 wherein the plurality of system reliability charges include an installed capacity service charge and an ancillary service charge.

47. The computer program product for forecasting retail pricing of electricity of claim 43 wherein the supplier risk premium is determined based on the pricing structure, a contract duration, a price duration volatility, a load variability, and a degree of contract volume variability.

48. The computer program product for forecasting retail pricing of electricity of claim 28 wherein the computer usable medium further comprises program instructions that perform a financial valuation of options embedded in a customer-supplier contract.

49. The computer program product for forecasting retail pricing of electricity of claim 48 wherein the instructions that perform a financial valuation of options include program instructions that evaluate a collar on an index-based price structure.

50. The computer program product for forecasting retail pricing of electricity of claim 48 wherein the program instructions that perform a financial valuation of options include program instructions that evaluate a contract extension option.

51. The computer program product for forecasting retail pricing of electricity of claim 48 wherein the program instructions that perform a financial valuation of options include program instructions that evaluate strike prices, forward prices and volatility.

52. A computer system for forecasting a retail price of electricity for an end-user customer in a deregulated market, comprising:

a component that performs a digital simulation of marginal clearing prices and hourly customer load;

a component that determines a risk premium to be added to the forecasted retail price based on an expected wholesale price volatility and an expected variability of customer load;

a component that performs a supply risk analysis; and

a component that presents the results of the supply price analysis to the customer.

53. The system for forecasting retail pricing of electricity of claim 52 further comprising a component that performs a cash flow at risk analysis and combines the results of the cash flow at risk analysis with the results of the supply price analysis.

54. The system for forecasting a retail price of electricity of claim 52 further comprising a component that performs a price duration analysis and combines the results of the price duration analysis with the results of a supply price analysis.

55. The system for forecasting a retail price of electricity of claim 52 further comprising a component that performs a cash flow at risk analysis and a price duration analysis and combines the results with the results of the price analysis.

56. The system for forecasting a retail price of electricity of claim 52 wherein the component that determines a risk premium comprises:

   a module that determines a load-weighted wholesale price for a specified time; and

   a module that determines a total risk premium associated with serving a customer load.

57. The system for forecasting a retail price of electricity of claim 52 further comprising a component that determines an allocation of the risk premium between the supplier and the customer.

58. The system for forecasting a retail price of electricity of claim 57 wherein the component that allocates the risk premium comprises a module that evaluates a supplier pricing structure and demand-based volume swings.

59.   The system for forecasting retail pricing of electricity of claim 57 wherein the component that determines the allocation of the risk premium further comprises:

a module that examines a stochastic load forecast to determine the simulation iterations in which the customer load was outside of allowable volume bands; and

a module that determines the allocation between the supplier and the customer for each simulation iteration in which the customer load was outside the allowable volume bands.

60.   The system for forecasting retail pricing of electricity of claim 57 further comprising a component that presents an analysis to the customer of the cost and risk tradeoffs for a plurality of pricing structures and demand-based volume bands.

61.   The system for forecasting a retail price of electricity of claim 53 wherein the component that performs a cash flow at risk analysis comprises a module that measures a potential deviation from an expected cost of a supply contract based on a variation in energy prices and demand volumes.

62.   The system for forecasting a retail price of electricity of claim 61 wherein the component that performs a cash flow at risk analysis comprises a module that determines a difference between an expected energy spending and the energy spending at a designated percentile.

63. The system for forecasting a retail price of electricity of claim 54 wherein the component that performs price duration analysis comprises a module that sorts hourly forecast of market prices and customer loads into a plurality of price bins and a module that displays the results as an expected case outcome, a low percentile outcome, and a high percentile outcome.

64. The system for forecasting a retail price of electricity of claim 52 wherein the component that performs a supply price analysis comprises a module that aggregates a load-weighted wholesale price, a line loss adder, a plurality of system reliability charges, a supplier risk premium, an overhead, and a profit margin.

65. The system for forecasting a retail price of electricity of claim 52 further comprising a component that performs a financial valuation of options embedded in a customer-supplier contract.

66. The system for forecasting a retail price of electricity of claim 65 wherein the component that performs a financial valuation of options includes a module that evaluates the effect of a collar on an indexed-based price structure.

67. The system for forecasting a retail price of electricity of claim 65 wherein the component that performs a financial valuation of options includes a module that evaluates the effect of a contract extension option.

68.   The system for forecasting a retail price of electricity of claim 65 wherein the component

that performs a financial valuation of options includes a module that evaluates the effect

of strike prices, forward prices, and volatility.